

CLAIMS

1. An electronic device comprising a display panel (10) having at least one substrate (30) on which are formed display pixels defining a display area (12) in which information is displayed, the device further including a drive circuit (33, 34) for driving the pixels, and touch input means operable by a user to perform input functions, the touch input means comprising a plurality of touch elements (15, 18) which are spaced from the substrate of the display panel and a sensing circuit (35) connected to the touch elements for sensing touching of the touch elements by a user, wherein the drive circuit (33, 34) for the pixels and the sensing circuit (35) of the touch input means are both carried on the substrate (30) of the display panel.
2. An electronic device according to Claim 1, wherein the pixel drive circuit (33, 34) and the sensing circuit (35) comprise thin film circuits integrated on the substrate (30) of the display panel.
3. An electronic device according to Claim 1 or Claim 2, wherein the electronic device includes a housing (20) that surrounds the display area (12) of the display panel, and the touch elements (15, 18) are located in the housing.
4. An electronic device according to Claim 1 or Claim 2, wherein the display panel forms part of a display module which includes a frame (20) in which the display panel is carried, and wherein the touch elements (15, 18) are mounted to the frame of the display module.
5. An electronic device according to any one of the preceding claims, wherein the sensing circuit (35) is responsive to a change in capacitance at a touch element (15, 18) due to a user touching the touch element.

6. An electronic device according to any one of Claims 1 to 4, wherein the sensing circuit is responsive to a change in resistance at a touch element resulting from a user touching the touch element.

5 7. An electronic device according to any one of the preceding claims, wherein at least one output of the sensing circuit (35) is used to control a display parameter.

10 8. An electronic device according to any one of the preceding claims, wherein the touch elements (15, 18) are arranged in one or more arrays extending adjacent one or more sides of the display panel.

15 9. An electronic device according to any one of the preceding claims, wherein the sensing circuit (35) is responsive to touching of touch elements to control scrolling of information displayed in the display area.

10. An electronic device according to any one of the preceding claims wherein the display panel comprises an active matrix display panel.